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ABSTRACT

This study addressed the construction and application of an instrument to measure students' perceptions of their resident assistant's ability to complete specified job skills. Survey items were written from identified training objectives necessary for effective, intentional interactions with students. The instrument has been constructed following the principles of the Rasch Model for psychometric measurement. As such, the instrument operationally defines a continuum of items with varying degrees of students' acquiescence. The level of acquiescence refers to how easy or difficult it is for students to agree or strongly agree with the items. In addition, student focus group data (seven focus groups) characterizing various levels of the variable continuum were collected. Responses were received from 182 undergraduates. There is empirical evidence from the study that a continuum of student acquiescence does exist. There is also preliminary qualitative evidence that the placement of resident assistants along the variable continuum is accurate. The instrument from this study along with student focus group data will assist resident assistants in achieving a greater level of success in their jobs. Three appendixes contain survey items and supplemental data. (Contains 6 figures and 25 references.) (Author/SLD)

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Applying the Rasch Model to Staff Evaluations: A Longitudinal Perspective

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Abstract

This study addresses the construction and application of an instrument to measure students' perceptions of their resident assistant's ability to complete specified job skills. Survey items were written from identified training objectives necessary for effective, intentional interactions with students. The instrument has been constructed following the principles of the Rasch Model for psychometric measurement. As such, the instrument operationally defines a continuum of items with varying degrees of students' acquiescence. The level of acquiescence refers to how easy or difficult it is for students to agree or strongly agree with the items. Additionally, student focus group data characterizing various levels of the variable continuum were collected. There is empirical evidence from the study that a continuum of student acquiescence does exist. There is also preliminary qualitative evidence that the placement of resident assistants along the variable continuum is accurate. The instrument from this study along with student focus group data will assist resident assistants in achieving a greater level of success in their jobs.

Introduction

The Higher Education Facilities act of 1963 allowed for the construction of new classrooms, libraries, laboratories, and dormitories (residence halls) to meet the growing needs of a surge of students entering into the higher education system. With the new resources came new issues and dilemmas concerning the best ways to meet the needs of the rapidly growing, and more diversified student body. To assist in meeting students' needs, higher education institutions turned to employing student paraprofessionals (Delworth, 1974). The employment of paraprofessionals in what were then called dormitories, now called residence halls, is still a pervasive and highly valued practice throughout institutions of higher education.

Since the 1960s there has been a growing body of literature concerned with the challenges of paraprofessional employment from various perspectives. Articles found concerning issues of hiring, training, evaluating, and burnout among residence hall staff described the role of a resident assistant as one that serves to assist in the affective and moral development of college students by fulfilling many different service roles including educator, confidant, administrator, disciplinarian, role model and counselor within the residence hall environment (Renz, 1976; Butters & Gade, 1982; Scroggins & Ivey, 1978; Kipp, 1979; Cowan, 1980; Heppner & Reeder, 1984; Durden & Neimeyer, 1986; Bliming & Miltenberger, 1990; Upcraft & Pilato, 1982; Weldeck, 1993; Anchors & Hay, 1990). Conceptually, it appears that there is agreement that resident assistants should be trained to diagnose social problems occurring in college residences. Resident assistants are expected to contribute unique services to students' total college-living experiences as their job assists residents' social and educational development (Zirkle &

Hudson, 1975; Bliming & Miltenberger, 1990; Upcraft & Pilato, 1982). Despite the stress that places resident assistants at risk for burnout (Benedict and Mondloch, 1989; Durden & Neimeyer, 1986) these paraprofessional staff are recognized as important members of residence hall professional team (Butters & Gade, 1982; Upcraft & Pilato, 1982).

Consequently great effort has been spent to evaluate the perceived performance of resident assistants in an attempt to ensure that the vast amount of resources going toward the preparation of student paraprofessionals was maximally meeting the needs of students. Researchers have attempted to predict resident assistant performance by gender (Weldeck, 1993), applicants' perceptions of the RA position (Biggs, 1971), perceptions of applicants' involvement in the Leaderless Group Discussion Technique[1] (Mullozzi & Spees, 1971), indicators of assertiveness (Shelton & Mathis, 1976), the use of the Personal Orientation Inventory[2] (Atkinson, Williams, & Garb, 1973), indicators of leadership behavior (Butters & Gade, 1982), use of the Myers-Briggs Type Indicator[3] (Anchors & Hay, 1990), students' scholastic aptitude test scores (Weldeck, 1993) and estimates of applicants' learning curve in pre-hire training programs (Renz, 1976). The varying levels of success and sometimes contradicting findings of the predictive validity of all of the above methods often lead to the conclusion that selection procedures should take into consideration the unique needs and features of the institution and involve more than one indicator of the applicant's potential (Upcraft & Pilato, 1982; Biggs, 1971; Mullozzi & Spees, 1971; German, 1979).

Although the literature involves inquiry into particular characteristics that are predictive of success in the position the topics of these articles cover a wide range of

individual characteristics. Little focus has been placed on the examination of the characteristics resident assistants possess on a continuum of job performance.

Purpose

The purpose of the present study is to evaluate student perceptions of their resident assistants job performance. Item response theory is used to construct a variable of levels of student acquiescence with items concerning resident assistant job performance. This study explored the extent to which students' perceptions of their interactions with staff can be measured as a variable and the extent to which students can characterize or describe skills they feel are necessary for staff to be successful at various levels of this variable. In this project the variable of interest was student acquiescence with items concerning resident assistant job performance. Student perceptions were examined through the collection of survey data as well as student focus group data characterizing various levels of the variable.

Once the median resident assistant affirmative rating along this variable is known, the defining characteristics associated with each item should provide information as to the job skills the resident assistant has mastered or does well. Additionally, the variable and item information will allow staff to see what skills he/she needs to develop to increase the extent with which he/she is able to interact with students to affect change in their behavior. The goal is to increase the usefulness of the feedback resident assistants receive from survey data. In her paper on the contest between large-scale accountability testing and the assessment in the service of learning, Shepard (2002) writes that "effective feedback requires more than right-wrong information, [the information] must

help the student see the gap between actual and desired performance and highlight the means for closing the gap." Rather than just surveying students and providing an overall score of resident satisfaction, this research seeks to provide staff with not only a measure of student satisfaction but also the information necessary to improve their ability to interact with students, thereby increasing students' satisfaction with how resident assistants perform the resident assistant job.

Participants

Students responding to the survey live in on-campus housing at one small, private institution in New England. Additionally, seven student focus groups were convened to determine the expectations each group had of specific resident assistant tasks characterized in the survey items. Students typically ranged in age from 18 to 24, but there were a few older students in the samples. All undergraduate degree programs were represented in the sample.

Survey Construction

The initial step in constructing the survey was to define the objectives of the resident assistant training program. In other words, the researcher needed to identify what staff would be taught during the approximately week long August training session. Since the survey would be given to students the survey items would only pertain to resident assistant tasks that students might witness in their interactions with the resident assistant. The researcher focused upon the August training rather than including any ongoing training sessions because the summer training program focuses upon the basics

of what all of the University's resident assistants should know to perform their jobs. Any ongoing training sessions often deal with issues that arise during the year and would be hard to attempt to predict what content would be covered.

To develop survey items that were aligned as closely as possible with expectations of a resident assistants job performance the training program was thought of as a class with a curriculum dealing with educating and assisting college students living within the residence hall system. This is different than most studies found in the literature in that the objectives upon which survey items were based were developed following the model Gronlund (1998) suggests for developing objectives for a traditional classroom assessment. The classroom assessment guidelines were adhered to as much as was applicable to increase the validity and reliability of the information obtained (Gronlund, 1998). To do this, Gronlund (1998) indicates that to get a "clearly specified set of learning outcomes" one needs to "state the intended learning outcome in performance terms".

For example, an objective for a math curriculum might be that students know multiplication. To state this in performance terms the objective would be written as follows: the student can multiply one and two digit numbers. Now, measuring mastery of the objective is better defined and the instructor can get a better sense of when to move on to the next objective. Successful completion of an objective is not as measurable within the context of a residence hall and this did provide some challenges. On a classroom assessment (if it is a paper and pencil measure) successful completion of the learning objective occurs when the student is able to demonstrate that he/she knows the material by responding correctly to items on the test.

In the residence hall setting successful completion of a job performance objective occurs when students residing on the floor believe that the resident assistant is capable. Since the job of the resident assistant is to address the needs of students and attempt to influence student behavior student opinions are sought to gain insight into whether or not a resident assistant performs his/her job well. This does create the opportunity for a "disconnect" between measuring what the resident assistant actually does and measuring the opinions of students. A resident assistant may perform his/her job well, but that does not necessarily mean that students will be satisfied with the outcome.

Item development was initiated by writing items that fit with the training objectives as closely as possible. Sixty items were constructed which asked students to comment on the performance of the resident assistant charged with the responsibilities for particular residence hall floors. Items were developed during brainstorming sessions or borrowed from other surveys. DeVellis (1991) advises that item content should exhaust the content domain; however, for a unidimensional scale, items should not merely focus upon the attitudes toward an object, but on specific attitudes toward that object (DeVellis, 1991). All items were reviewed for congruence with job responsibility objectives for resident assistants prior to being added to the final list of potential items for the survey. The goal was to focus the item content upon student's opinions and attitudes toward the job related conduct of their floor resident assistant. Items were kept that covered the training session of collaboration, concern for community, conflict resolution and problem solving, effectiveness with diversity, and communication; the competency sections defined for the resident assistant training program upon which job performance

objectives were based. The professional staff reviewed the item pool and changed, deleted and added items to maximize equitable coverage of the objectives.

More research-based items (i.e. My RA is Mature, My RA is a person with integrity, My RA is kind, and My RA is confident) were also included in an attempt to triangulate characteristics students would provide in the focus groups. These particular items are not items pertaining to specific job tasks, nor are they items intended to remain on the final instrument. The inclusion of these items was done to triangulate less describable characteristics that might emerge from the focus group data. Although students may not be able to articulate what it meant to be mature they might indicate maturity as a desirable characteristic from their resident assistant. Additionally, they might articulate what types of behaviors they see from a resident assistant function at a "mature" level of effectiveness.

Two additional items worth mentioning had to do with the extent to which students valued the resident assistant position in general: "My RA has a complex job" and "Knowing my RA is important to my college experience". These items were included to gain insight as to how difficult students felt the role of the resident assistant was and the extent to which the resident assistant was important in their college experiences.

The item pool was reviewed by a voluntary sample of 13 students, each a representative of a different residence hall floor community. All were undergraduate members of the on-campus residence hall association from a variety of majors; generally speaking, these students were the accessible sample of students representative of the general on-campus student population. Their participation in this stage of item

development was desired because, characteristically, students in the association are active in their floor/hall communities and are intentionally invested in how the other students feel and think about their residence living experiences.

Additionally, the students were asked to put all of the 60 items into 15 different categories. The researcher divided the number of items in the pool by four to find the number of categories. The number of categories is essentially arbitrary, but gave the item judges a theoretical scale to focus upon without making the task too cumbersome. The categories ranged from one being "I don't need to know my RA at all to respond truthfully to the item," to 15 being, "I need to know my RA well to respond truthfully to this item." From this process, 22 items were identified as potentially spanning the 15-point scale. This process as outlined by DeVellis (1991) and Gorden (1977) and suggested by Wright & Masters (1982) as one technique that can be used to initiate the construction of a unidimensional scale of items. This process was done to obtain items that would span across the hypothesized unidimensional variable, student acquiescence toward resident assistant job performance.

Additionally, this stage of item review helped ensure that staff and students interpreted both the literal meaning of the question as well as having the same relative understanding of the item (Peterson, 2000). Questions about specific items were noted and taken into account when selecting and editing a final set of items for the survey included here in Appendix A.

Survey Pilot Study

The completed surveys were administered to undergraduate students living on campus in the spring semester 2001 two weeks prior to spring break. Students ranged in class from freshmen to senior, however, the majority of students living on campus are freshmen and sophomores, generally speaking, as there was a two-year residency requirement at UNE.[4] Students ranged in age from 18 to 23 and are representative of all 28 undergraduate programs of study offered. Resident assistants were asked to administer the surveys to students during a floor meeting. Students responding to the survey were asked to mark their responses to items on a five point Likert scale with values ranging from strongly disagree to strongly agree with a neutral category value of no opinion. Once questionnaires were completed they were put into an envelope that was then sealed and brought to the central office by someone other than the resident assistant. Of the approximately 200 pilot surveys administered, 182 surveys were returned. Each survey was coded with a number that was assigned to the floor(s) for a particular resident assistant. So all questionnaires of residents residing on floors overseen by the resident assistant assigned the number one were coded with the number one. Only the professional staff member who assigned numbers knew the identity of the corresponding resident assistant and floor community. The findings of the pilot study are included in the results section of this paper. Sample sizes for each year of the study including the pilot year are displayed in table 1. The percentage of the total of on-campus student body is also included.

Table 1. Sample Sizes for Each Year of the Study Having Usable Data

Year	Sample Size	Percentage of total
2001	183	45
2002	300	75
2003	327	81

Student Focus Groups

A second goal of the project involved characterizing the various levels of the variable being measured, student acquiescence with resident assistant performance. Focus groups were conducted to gain insight as to how students view the role of resident assistants. More specifically, the researcher sought student descriptions characterizing behaviors students needed to see to agree with selected items. The importance of gaining the students' perspective is crucial to assessing the success of resident assistants, as students are the focus of resident assistant position. Items were chosen for this phase of data collection based upon the results of the Rasch analysis of the pilot study data given that initial supportive evidence of a variable continuum existed.

To collect this information focus groups were held with student volunteers in each of the five, university residence communities. The students' focus groups were done throughout the two academic years following the administration of the pilot survey. All focus groups were held in the late fall semester or spring semester. At these times, students have had experience with residence hall staff and it was thought they would have a better understanding of the job as well as a more informed perspective due to their experience living in the residence halls. Students were asked to describe the skills, traits and/or characteristics that they need to see from a resident assistant to mark the response

"agree" or "strongly agree" to the item. Results of a content analysis of the focus group data will be matched with items or groups of items on the survey.

Students attending the focus group signed a consent form that detailed the purpose of the focus group and the implications of the results. No identifying information about the individual students in the focus groups or the halls within which they resided was collected or distributed. Students returned consent forms to an attending professional staff member to maintain confidentiality within the context of the study.

The focus group information will serve several purposes two of which are covered in this paper. It will provide behavior definitions students feel are necessary to successfully complete given job tasks and in conjunction with the Rasch item calibrations will be used to assess the resident assistant training program.

Analysis

Using the Statistical Package for the Social Sciences (SPSS) version 11.0, a reliability analysis was performed specifying the use of the Cronbach alpha reliability coefficient for both the scale of items and the event that each item is deleted from the scale.

Next an unrotated, principle components analysis was performed on the scale of items to determine the percentage of variance common among the items. A confirmatory factor analysis (CFA) using principle axis factoring was performed to gain evidence of the viability of a single existing factor. If needed, an oblique rotation was used because it was believed that any factors extracted were likely correlated due to the content of the items and the nature of the survey. Use of CFA is desirable because results reflect

relationships based solely upon variance shared common to all items. In the final analyses items 19 and 23 were excluded due to their detrimental affect upon the reliability of the scale of items and because they were not intended to measure the effectiveness of resident assistant interactions.

Finally, a Rasch analysis was performed on the data using the windows version of WINSTEPS version 2.98 (Linacre &Wright, 1991). All 28 items were included in the analysis with items 6, 11, and 28 reverse coded. Reverse coding of the items for the final analysis resulted from analysis findings from the pilot study data.

Results

Classical test theory results for all three years indicated that the reliability of the 26 items included in the analysis was greater than 0.94. This remained consistent when "alpha if item deleted" was calculated for each item.

The results of the principle components analysis for each year yielded a KMO statistic greater than 0.94 indicating that approximately 94 percent of the variance is common variance among the items. The observed probability value ($p<0.0001$) for the Bartlett's test of sphericity indicates that a relationship among the items is likely to exist.

Initial (un-rotated) factor analyses solutions with principle axis factoring, for each of the three years of data showed all items having factor loadings of 0.40 and greater on the first factor. The scree plot of the eigenvalues as well as the percent of variance accounted for by the first factor (over 43%) all supported the one-factor solution. Of the 26 items included in the factor analysis (item 23, Knowing my RA is important to my college career, and item 16, My RA has a complex job were left out of the analysis), 24

items consistently had the highest factor loadings on the first factor. Results of the factor analysis of the 2003 data show item 6 (My RA is only interested in the power of the position) and item 28 (My RA projects a negative attitude) have highest loading on factor 2; item 11 (My RA only socializes with a small group of people) does not clearly load on any one factor. The bulk of this evidence supports the existence of a one factor scale of items.

In the first of two Rasch analyses, using the pilot study data, three items addressing unfavorable resident assistant characteristics (socializing with only small groups of residents, resident assistant has a negative attitude, resident assistant is only interested in the power of the position) were entered into the analysis but were not reverse coded. When the professional staff reviewed the variable and person maps, the staff found a better practical interpretation once these items were reverse coded. Without reverse coding these three items 6,11, and 18 were more "difficult to agree with" than any other items. A resident assistants at the top of the item map are staff students rated as being more able to achieve the goals and outcomes of their jobs. Given that location estimates for both persons and items run from low (at the bottom of the variable map) to high (at the top) this also means that students who believe their resident assistants are proficient in their jobs, students with high logits, found it difficult to agree with these three items. Logically, this is correct. However, it didn't make sense that the items concerned with poor resident assistant characteristics should be represented in the higher end of the scale with the more able staff. Visually, placement of these items at the top of the variable map seemed contrary to the placement of the other items. In other words, these items, representing negative qualities a resident assistant might have, appeared to be

items that high achieving resident assistants were not overcoming in their interactions with students.

Hence, in the subsequent Rasch analyses done the items 6, 11, and 28 were reverse coded. When this was done with the pilot study data the analysis yielded item acquiscence estimates consistent with the interpretation of the greater scale of items. Reverse coding the items also reconciled patterns of misfitting responses for these three items (i.e. response patterns that were inconsistent under the Rasch model). In fact, once these items were reverse coded, there was no discernable pattern of misfitting responses for items or people.

The Rasch analysis variable map for the piloted survey is shown in figure 1. To make sense of the variable map note that the left side of the map shows how items are distributed. Shown on the right side of the map are the median affirmative-rating location estimates for each resident assistant. Several students residing on the floor of which a resident assistant was responsible, completed the surveys. Each of these student's surveys was coded with the number assigned to his/her particular resident assistant. To find a location of the resident assistant on the variable map, the median logit of all students rating a particular resident assistant was found. This is the value for each resident assistant (RA) displayed on the map in figure one.

[FIGURE 1 Here; Included in Appendix C]

The item location estimates had a standard deviation of 0.71, with a minimum item logit of –2.32 and a maximum of 1.25. The mean location estimate for students was 1.60 with a standard deviation of 1.54 with a maximum person logit of 5.57 and a minimum logit of – 2.03. Given that the mean of persons was higher than that of the items the results for this analysis indicate that the average "affirmative rating of the resident assistants job performance" was relatively positive; an indication that students needs are being met.

Table 2 shows the Rasch analysis summary statistics of the 2002 and 2003 years having somewhat consistent findings with those of the pilot study. The mean for students' rating their resident assistants' performances is approximately one logit higher than the mean of the items in both the 2002 and 2003 analyses with standard deviations close to 1.50.

Table 2. Student Mean Affirmative Ratings and Standard Deviations for Past Three Years

Year	Mean Student Fit	Standard Deviation
2001	1.03	0.71
2002	1.06	1.40
2003	1.15	1.32

Figures 2 and 3, show the variable maps for items and median resident assistant affirmative ratings for the years 2002 and 2003.

[FIGURE 2 Here; Included in Appendix C]

[FIGURE 3 Here; Included in Appendix C]

These figures show a somewhat static ordering of items along the variable continuum. There appears to be greater variability in how resident assistants were rated in the year 2002 than in the year 2003.

From an examination of the item fit statistics patterns of misfitting responses were found for the negatively worded items. An examination of the individual student surveys showed these patterns to be indicative of aberrant results. Student's written comments provided clues as to the causes for the misfitting patterns. In some cases students marked strongly agree to all items and in the written comment sections wrote comments like, "Mandy Kicks Ass" and "Missy always goes above and beyond for us." This information appears to indicate that the students didn't read the questions carefully. In other instances the written comments for these items indicated that the resident assistant generally had a negative attitude: "She is a little 'PMSy' and takes it out on us" or "he is a little quick to inflict discipline." In these instances students generally indicated that the staff performed the other job tasks well but also felt they did not overcome these negative characteristics. Although these results were not pervasive, they do bring to question the role these items are playing in the larger scale of items.

Examining plots of item calibrations over the course of the three years gives a better indication of the invariance of the item calibrations over time. Figure 4 shows a comparison of the 2001 item calibrations with the 2002 calibrations one can see that item 15 (My RA is Assertive) is the only item outside of the 95% confidence interval. In this instance, student found it harder to agree with this item in the year 2002 than in the year

2001. Since we would expect to see such on occurrence five percent of the time this result isn't terribly surprising. One item is less than five percent of the total of 28 items.

[FIGURE 4 Here; Included in Appendix C]

Respectively, figures 5 and 6 show the comparison between the item calibrations for the years 2001 versus 2003, and 2002 versus 2003.

[FIGURE 5 Here; Included in Appendix C]

In figure 5 one can see that item 7 (My RA has taken time to get to know me) was harder for students to agree with in the year 2003 than for students in 2001. Although item three (I know who my RA is) comes close to being outside of the 95% confidence interval for both of the comparisons in figures 5 and 6 it appears to lie just inside the interval. No items are outside this interval in figure 6.

[FIGURE 6 Here; Included in Appendix C]

When the Rasch analysis provides evidence suggesting that items are sufficiently separated along a variable, there is support for the existence of a continuum (Wright & Masters, 1982). Table three shows the separation statistics for each of the three years of data. Given that the reliability of the separation index is greater than 0.96 for each year, the percentage of variation due to measurement error is small, less than four percent. The

results show that each year there are eight or more statistically distinct levels or strata of item acquiscence indicating that there is good separation of the items along the variable.

Table 3. Item Separation Statistics by Year

Year	Separation Index	Reliability	Strata
2001	6.40	0.96	8.80
2002	6.98	0.98	9.50
2003	6.89	0.98	9.40

Table 4 shows the student separation indices. These indices indicate how well the survey separates the students in a particular sample. For each of the three years the separation index reliability is greater than 0.91 and the number of strata are greater than 4. These separation statistics indicate that there are at least 4 statistically distinct levels or strata of student affirmative ratings of their resident assistants.

Table 4. Student Separation Statistics by Year

Year	Separation Index	Reliability	Strata
2001	3.73	0.93	5.3
2002	3.46	0.92	4.9
2003	3.24	0.91	4.6

Preliminary evidence indicates that the resident assistant median scores shown on the variable map in figure 3 are generally reflective of the professional staff perceptions of resident assistants' job performances. A more detailed breakdown is difficult for the 2003 data given that students' overall level of acquiescence tends to be high indicating

high levels of job performance by resident assistants. Also, although a content analysis of the focus group data has yet to be done, the staff indicated that the skills students listed corresponding nine of the items, highlights of which are shown in appendix B, appear to be reflective of the current staff competencies.

Conclusions and Discussion

The results of the classical test theory analyses and the Rasch analyses for the three years of data support the existence of a unidimensional variable continuum. Preliminary indicators also suggest that the survey items along with the student focus group data are accurate general indicators of staff performance, however, a content analysis is needed.

Given that this is a "dissertation in progress," additional analyses need to be done concerning the research items (My RA is kind, My RA is mature, My RA has integrity, etc.) to determine their fit with not only the greater set of times but also with the student focus group information. Although these items tend to act in concert with the larger scale of items they are not measuring job tasks. It was never intended that these items would remain on the final instrument, but whether or not their inclusion has been useful has yet to be determined.

Due to the limited resources of the study, the content of the instrument has not changed over the course of the three years. Given this, it has been possible to view how items perform from year to year but improvements to included items has not taken place. Although the general trend has shown that the items are predominantly invariant on the variable continuum, within small sections of the continuum items do flip-flop their

positions. This could be due to the fact that the items are serving redundant purposes. Regardless of the cause, a more in depth look at these instances needs to be done.

Contingent upon the further examination of the extent to which the median resident assistant affirmative rating adequately represents a staff person's performance, the development of a procedure to take into account not only one's median affirmative rating but also the variability in the affirmative rating logits might be necessary. An indication of whether students under one's responsibility are in general agreement about his/her performance versus diversified in their perceptions can be useful to staff.

Throughout analyzing the data, individual items performed differently at varying stages of the analyses. As was mentioned before, Items 19 and 23 (My RA has a complex job and Knowing my RA is important to my college experience) were excluded from the reliability and factor analyses but included in the Rasch analyses. The negatively worded items performed differently depending upon the year and when viewing instances of most misfitting response strings, these items were involved. In some cases student comments indicated that a resident assistant could do most of the job tasks well but periodically had a negative attitude. In other instances student comments appeared to indicate that the resident assistant was viewed as performing his/her job well and hence students responded strongly agree to all items without really reading carefully. In any event, rewording these items might be appropriate.

The limitations of the study include but are not limited a budget freeze at the institution making edits to the survey and reprinting not possible. Limited access for surveying students made follow-up administrations not possible because information

requests from the students living in the residence halls is frequent an there was a concern that participation rates for all inquires would decline.

Preliminarily, this study does appear to have yielded promising results for the combined use of the Rasch measurement model, survey data and focus group data to investigate student perceptions. More analysis is needed before the extent of these results is realized, however, this project proposes the use of combined methodologies in a context where measurement of a trait has been difficult or limited by the use of only a single methodological approach (i.e. a survey) and/or by the limited focus on one characteristic of interest (i.e. gender, GPA, etc.). Combining methodologies forces one to pursue measurement from various perspectives; a practice that requires one to refine and clarify what it is that is being measured.

Endnotes

[1] Popularized by Bernard Bass in 1949 (Mullozzi, 1971) the technique involves placing candidates for a particular position in groups of five to seven and giving them a relevant topic for a given period of time. Professional staff then observes the group process and make evaluations of each group member's proficiency in the discussion based upon predetermined desirable criteria.

[2] The Personal Orientation Inventory used to measure levels of self-actualization (Atkinson, Williams, & Garb, 1973)

[3] The Myers-Briggs type indicator measures preferred information processes like introversion/extroversion, sensing/intuition, thinking/feeling, judging/perception

[4] Presently the residency requirement has been increased to three year.

Appendix A

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List of Survey items

Items are listed in the order they appeared on the questionnaire

1. My RA respects the values of people on the floor.
2. My RA is efficient in administrative tasks that affect students
3. I know who my RA is
4. My RA demonstrates openness toward students through positive, supportive interactions
5. My RA is a person with integrity.
6. My RA is only interested in the power associated with her/his position.
7. My RA has taken time to get to know me.
8. My RA confronts harassing and/or unjust behavior on my floor.
9. My RA seems to like his/her job.
10. My well-being is important to my RA.
11. My RA socializes with only a small group of people on the floor.
12. My RA is a good role model.
13. My RA refers me to others when she/he cannot help.
14. My RA is kind.
15. My RA is assertive.
16. My RA works well with the other RA s in my building.
17. My RA responds to the needs of the floor community.
18. My RA is confident.
19. My RA has a complex job.
20. My RA is mature.
21. My RA understands floor Social dynamics.
22. My RA effectively manages roommate conflicts.
23. Knowing my RA is important to my college experience.
24. My RA knows the campus well.
25. My RA consistently enforces university policy.
26. My RA can describe the different types of diversity on the campus.
27. My RA offers programs, which educate students about different diversity topics.
28. My RA projects a negative attitude.

Appendix B

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Summary of attributes for selected items obtained from students during focus group sessions.

DIVERPRO (0.87):
Focus on more than one issue other than race (issues on campus); have fun programs; work with other RA's; Advertise/sell the program; Guest Speakers; Don't preach to residents; interesting topics

ROOMCONF (0.47):
Know what is happening with people; be approachable and respectful; Know when to refer people/don't let things go to far; know your limitations & comfort level and tell those involved; Communication; Keep records/do paperwork; Listen to both sides and don't take sides; Keep informed & care about what is going on; don't let things go to far

GOODROLE (0.34):
Don't be hypocritical; show examples of involvement & entertainment; be aware that what you do affects everyone; show that sacrifice personal values for group/others or residents

UNJUST (0.30):
Don't take sides; calm, cool, collected; approach residents on an equal level; be aware of "RA presence"; maintain confidentiality & professionalism (save face); work for compromise/don't impose solution; fair request for behavior modification from both parties; Do something personally – go beyond basic protocol/follow-up meaningfully

SOCDYNA (0.17):
Communicates with residents; has a presence on the floor; approachable; being part of the group – not above residents; demonstrates that you want to do the job; Aware of tension – mediate – react to things – "Check-in"; non-judgmental-acceptable-understands different perspectives; Staff sponsored floor social activities; If issues happen-call a meeting-check up on everyone-see how people are doing

EFFADMIN (-0.02):
Knows deadlines & urgency of information; prioritize; communicates well and efficiently with students and administration; follow-up; task oriented; reliable & responsible; updates bulletin boards; "see problems and does something about them; able to make changes if something doesn't work

RESPVALU (-0.55):
Reliable, non-judgmental; knowledge of residents' values; not condescending or hypocritical; maintains confidentiality (doesn't listen at resident's door) respects privacy; Socializes with residents; listens to what students want and like; able to balance personal needs with needs of floor; doesn't necessarily try to influence

KNOWSCAM (-0.70) :
RA who is involved in other activities in campus; Can answer questions about campus and make accurate referrals (knows both direction and location of referral; i.e. where to park) Knows information about upcoming events; Knows professors

KNOWRA(-1.59):
RA introduces self & has a presence on the floor (provides contact information – "Where they are, important phone numbers, when they will return); Characterized as accessible, friendly, trustworthy, responsible, fair, open-minded, with a kind/nice disposition; Someone who will talk to you as well as listen and is interested in understanding the residents as well as interested in their well being; team-player with good communication skills; displays leadership and is consistent in what he/she does; Authoritarian

Appendix C

Figure 1. 2001 Item Calibration vs. Resident Assistant Median Affirmative Rating

Items Students Agree with Less often
More Effective Resident Assistants
RA #12 = 3.21
RA #10 = 2.99
RA #1 = 2.75
RA #9 = 2.63
2 + T
RA #6 = 1.93
M – Mean for students
RA #16 = 1.75
RA #8 = 1.36
SMSOCIAL (1.25)
DIVERPRO (1.17)
1 + S
RA #4 = 1.00
RA #5 = 0.95
IMPORTANT (0.92)
RA #14 = 0.72
COMPJOB (0.64)
REFERS (0.56) ROOMCONF (0.52) UNJUST (0.52)
ASSERTIV (0.41) GOODROLE (0.40)
RA #7 = 0.40
RA #13 = 0.40
SOCDYNA (0.32) DESCDIV (0.39)
POWER (0.20) GETKNOW (0.27)
0 - Mean for items
MYWELLBE (-0.04) CONSTENT (-0.04) RESPCOMM (-0.05) MATURE (-0.13)
OPENNESS (-0.23) EFFADMIN (-0.20)
INTEGRIT (-0.39) CONFIDNT (-0.34)
LIKEJOB (-0.43)
ISKIND (-0.59) WORKWELL (-0.55) NEGATTIT (-0.59) RESPVALU (-0.59)
-1 + S KNOWSCAM (-1.06)
RA Year Key
3rd Year RA = Italics
2nd Year RA = Bold
1st Year RA = Normal
-2 + T
KNOWRA (-2.32)
Items Students Agree With More Often
LESS Effective Resident Assistants

Figure 2. 2002 Item Calibration VS. Median Resident Assistant Affirmative Rating

Items students Agree With LESS Often
MORE Effective Resident Assistant Rating
RA #1 =2.77
RA #16 = 2.40
RA #17 = 2.23
RA #4 = 2.21
RA #8 = 2.04
2 + T
M - Mean for Students
RA #2 = 1.85
RA #15 = 1.71
RA #7 = 1.49
RA #11 = 1.29
RA #13 = 1.16
1 + S
SMSOCIAL (0.98)
RA #9 = 0.98
IMPORTANT (0.83) DIVERPRO (0.83)
RA #18 = 0.84
RA #10 = 0.76
GETKNOW (0.56)
REFERS (0.40) ROOMCONF (0.40) COMPJOB (0.44) GOODROLE (0.49)
POWER (0.32) SOCDYNA (0.30)
RA #14 = .37
UNJUST (0.22)
0 - Mean for Items DESCDIV (0.03)MYWELLBE (0.05) ASSERTIV (0.06)
OPENNESS (-0.01) RESPCOMM (-0.02)LIKEJOB (-0.04) MATURE (-0.08) EFFADMIN (-0.09)
CONSTENT (-0.25) NEGATTIT (-0.28)
RA #3 = -0.19
INTEGRIT (-0.38)
ISKIND (-0.42) RESPVALU (-0.41) CONFIDNT (-0.43)
WORKWELL (-0.50)
RA #5 = -0.51
KNOWSCAM (-0.96)
-1 + S
T
KNOWRA (-1.90)
-2 + T
RA Year Key
2nd Year RA = Bold
1st Year RA = Normal
Items Students Agree With MORE Often
LESS Effective Resident Assistants

Figure 3. 2003 Item Calibration VS. Median Resident Assistant Affirmative Rating

Items Student Agree With LESS Often
MORE Effective Resident Assistant Rating
RA #6 = 2.76
RA #7 = 2.99
RA #23 = 2.54
RA #17 = 2.30
RA #16 = 2.64
RA #29 = 2.73
RA #1 = 2.12
RA #25 = 2.08
RA #5 = 2.08
2 + T
RA #24 = 1.61
RA #27 = 1.61
RA #13 = 1.47
RA #3 = 1.40
M| - Mean for Students
RA #28 = 1.17
| SMSOCIAL (1.12)
RA = 26 = 0.85
RA #2 = .89
RA #18 = .85
1 + S
| IMPORTANT (0.97)
| DIVERPRO (0.87)
| GETKNOW (0.71)
| REFERS (0.45) ROOMCONF (0.47) COMPJOB (0.45)
| POWER (0.36) UNJUST (0.30) DESCDIV (0.34) GOODROLE (0.34)
|MYWELLBE (0.15) ASSERTIV (0.16) SOCDYNA (0.17)
0 - Mean for items
| EFFADMIN (-0.02) CONSTENT (-0.05)
|RESPCOMM (-0.21) LIKEJOB (-0.23)
| OPENNESS (-0.30) INTEGRIT (-0.35)
| CONFIDNT (-0.41) MATURE (-0.48)
| WORKWELL (-0.52) RESPVALU (-0.55)
| NEGATTIT (-0.67)
| KNOWSCAM (-0.70)
| ISKIND (-0.80)
-1 + S
T|
|KNOWRA (-1.59)
-2 + T
Items Students Agree With MORE Often
LESS Effective Resident Assistant Rating
RA Year Key
3rd Year RA = Italics
2nd Year RA = Bold
1st Year RA = Normal
NO RA = Underline

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Figure 4. Comparison of Item Calibrations for the 2001 and 2002 data

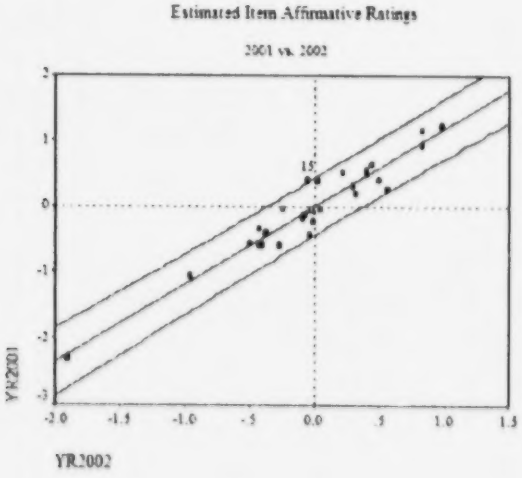


Figure 5. Comparison of Item Calibrations for the 2001 and 2003 data

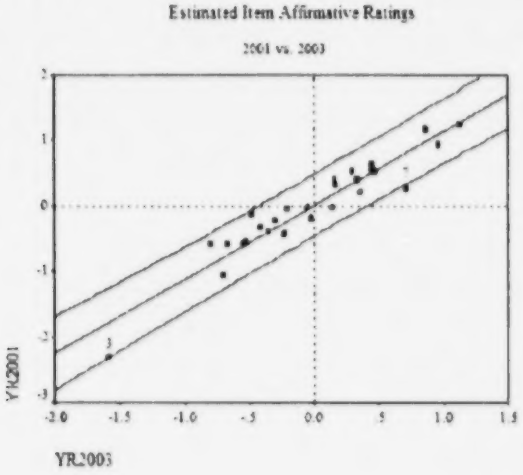
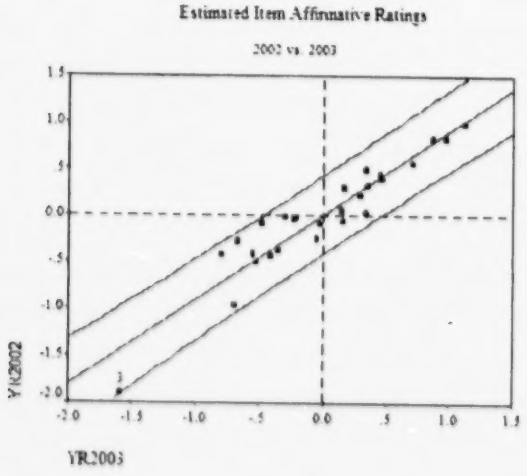


Figure 6. Comparison of Item Calibrations for the 2002 and 2003 data



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